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DAE#

PATENT
Attorney Docket No. NAC-447

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS: Morello et al.
SERIAL NO.: 10/622,067 GROUP NO.: 3676
FILING DATE: July 17, 2003 EXAMINER: Not Yet Assigned
TITLE: CORE INSERT AND METHOD OF USE

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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DEC 02 2003
GROUP 3600

PETITION FOR RETROACTIVE LICENSE UNDER 37 C.F.R. § 5.25

The undersigned attorney petitions for a retroactive license under 35 U.S.C. § 184 for the above-identified patent application. In accordance with 37 C.F.R. § 5.14(a), a copy of the above-identified patent application is not submitted with this Petition.

In accordance with 37 C.F.R. § 5.25(a)(1) and (2), the undersigned attorney submits that the patent application was filed with the Canadian Patent Office on July 17, 2003.

In accordance with 37 C.F.R. § 5.25(a)(3), a verified statement from the undersigned attorney is submitted herewith.

In accordance with 37 C.F.R. § 5.25(a)(4), the required fee under 37 C.F.R. § 1.17(h), i.e., \$130.00, is submitted herewith. If an additional fee is required for this submission, the Director is authorized to charge the fee to Deposit Account No. 20-0531.

The undersigned respectfully requests that this Petition be granted. If there are any

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questions with respect to this Petition, the Patent Office is requested to contact the undersigned attorney.

Respectfully submitted,

Dated: November 12, 2003
Reg. No. 41,640

Tel. No.: (617) 248-7012
Fax No.: (617) 790-0037



Michael H. Brodowski
Attorney for Applicants
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125 High Street
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PATENT RECEIVED
Attorney Docket No. NAC-447
NOV 17 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OFFICE OF PETITIONS

INVENTORS: Morello et al.
SERIAL NO.: 10/622,067 GROUP NO.: 3676
FILING DATE: May 17, 2003 EXAMINER: Not Yet Assigned
TITLE: CORE INSERT AND METHOD OF USE

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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GROUP 3600

VERIFIED STATEMENT IN SUPPORT OF PETITION FOR RETROACTIVE
LICENSE UNDER 37 C.F.R. § 5.25

The undersigned attorney submits this Verified Statement in Support of Petition for Retroactive License Under 35 U.S.C. § 184 for the above-identified patent application.

In accordance with 37 C.F.R. § 5.25(a)(3)(i), the undersigned attorney avers that the subject matter in question was not under a secrecy order at the time it was filed abroad, and that it is not currently under a secrecy order.

In accordance with 37 C.F.R. § 5.25(a)(3)(ii), the undersigned attorney submits that a foreign filing license has been diligently sought after discovery of the proscribed foreign filing as detailed below.

In accordance with 37 C.F.R. § 5.25(a)(3)(iii), the undersigned attorney submits that the material was filed with the Canadian Patent Office through error and without deceptive intent without the required license under 37 C.F.R. § 5.11 first having been obtained. In support, the undersigned attorney submits that the assignee of the above-identified patent application typically foreign files its patent applications via the Patent Cooperation Treaty (PCT) using the U.S. Receiving Office, which will not forward the patent application abroad until after a foreign filing license has been granted. For this application, the assignee provided foreign filing instructions near the one year anniversary of U.S. Provisional Patent Application Serial No. 60/396,359, to

which the above-identified patent application claims priority. The assignee decided to forgo the PCT application route and to file only with the Canadian Patent Office. The undersigned attorney only recently became aware that the foreign filing had taken place without the required foreign filing license having first been obtained. Accordingly, the undersigned attorney submits a Petition for Retroactive License Under 37 C.F.R. § 5.25 herewith.

The undersigned attorney further submits that the above-identified patent application was substantially identical to the application that was filed with the Canadian Patent Office. U.S. Provisional Patent Application Serial No. 60/396,359, to which the above-identified patent application claims priority and includes the subject matter thereof, was granted a foreign filing license on July 31, 2002 (see enclosed copy). The enclosed copy of an electronic comparison of the above-identified patent application and U.S. Provisional Patent Application Serial No. 60/396,359 shows that the additional material included in the above-identified patent application essentially was an Abstract and claims based on the originally filed provisional patent application with additional technical terminology and a description of those claims in the Summary of the Invention section. Accordingly, the undersigned attorney submits that a foreign filing license had been granted for a majority of material contained in the above-identified patent application prior to the foreign filing of a substantially identical patent application with the Canadian Patent Office. The above-identified patent application was granted a foreign filing license on October 16, 2003 (see enclosed copy).


I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false

statements may jeopardize the validity of this application or any patent issuing therefrom.

Respectfully submitted,

Dated: November 12, 2003
Reg. No. 41,640

Tel. No.: (617) 248-7012
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT. CLAIMS	IND. CLAIMS
60/396,359	07/17/2002		160	NAC-447PR	3		

 021323
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CONFIRMATION NO. 3462

FILING RECEIPT



OC000000008552785

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 Date Mailed: 08/01/2002

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

 Peter S. Morello, Plymouth, MA;
 Danny Earl Rines, Jefferson City, TN;

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GROUP 3600

If Required, Foreign Filing License Granted 07/31/2002

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No

Title

Core insert and method of use

~~No Filing Fee~~

KAS

8-7-02

Administrator

Updated CPI

Reviewed & Approved

DLH

8/8/02

Special Agent

Date

 LICENSE FOR FOREIGN FILING UNDER
 Title 35, United States Code, Section 184
 Title 37, Code of Federal Regulations, 5.11 & 5.15
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This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/622,067	07/17/2003	3676	0.00	NAC-447	3	11	1

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HIGH STREET TOWER
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CONFIRMATION NO. 1835

FILING RECEIPT



OC000000011056299

COPY

Date Mailed: 10/17/2003

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Applicant(s)

Peter S. Morello, Plymouth, MA;
Danny Earl Rines, Jefferson City, TN;

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/396,359 07/17/2002

Foreign Applications

If Required, Foreign Filing License Granted: 10/16/2003

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

Title

Core insert and method of use

Preliminary Class

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GROUP 3600

No Docketing Necessary

KFS
Administrator

Date

CPI updated
Reviewed & Approved

Res. Atty

Date

070

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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COPY

CORE INSERT AND METHOD OF USE

[0001] This application claims priority to U.S. Provisional Patent Application Serial No. 60/396,359 filed on July 17, 2002, the entire contents of which are incorporated by reference herein.

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Field of the Invention

[0002] The invention generally relates to roll core inserts and methods of using roll core inserts. More specifically, the invention relates to roll core inserts disposed with a security device.

Background

[0003] — ~~[0001]~~ Theft accounts for a significant portion of the losses incurred in the retail sector. A number of technologies have been implemented in retail stores in an attempt to reduce losses due to theft. For example, security devices such as electromagnetic and acoustomagnetic responsive transponders have been used to alert store personnel of an ongoing theft. The transponders have been manufactured into or in the shape of a label, *e.g.*, a bar code label, to disguise their identity, and placed on the surface of the item. The transponders also have been placed inside retail items, *e.g.*, inside the jacket of a book. However, over time, would-be perpetrators have learned to remove these labels, thus eliminating the theft protection afforded by these devices.

[0004] — ~~[0002]~~ Further compounding this problem is the theft of register rolls for the purpose of printing fake receipts. The fake receipt and the stolen item then may be presented to the store for a cash refund. In this manner, stolen items can be converted to retail cash value.

Summary of the Invention

[0005] — ~~[0003]~~ The present invention addresses this problem by providing a core insert to which a security device can be affixed and then inserted into a register-roll core. For example, the core insert can be slid into a register roll core and affixed, *e.g.*, by a pressure or friction fit between a portion of the core insert and the interior diameter of the roll core. Additionally or alternatively, adhesive can be used to affix the core insert to the interior of the register roll core. The portion of the core insert that is exterior to the register roll after insertion of the core insert preferably is configured to appear as a conventional register roll exterior. For example, the

exterior can include a protrusion configured to engage machinery into which the roll is inserted and subsequently used. Upon insertion, the security device will trigger an alarm if a person attempts to remove a register roll from the premises.

[0006] In one aspect, the invention features a roll core insert including a first circular disk and a second circular disk. Each disk has an inside planar surface and an outside planar surface. A body connects the inside planar surface of the first circular disk and the inside planar surface of the second circular disk. A security device is disposed on the roll core insert. At least one of the outside planar surface of the first circular disk and the outside planar surface of the second circular disk includes an engagement mechanism, which enables placement within and/or retrieval from a machine, such as a fax or a cash machine. The engagement mechanism may be a tab that protrudes from and is exterior to the roll core insert or may be a pattern cut into a portion of the roll core insert, e.g., a star-shape or hexagonal-shape cut into the first circular disk.

[0007] In certain embodiments, the connecting body is a rectangular shape, e.g., a spar, that contacts at least a portion of a diameter of the first circular disk and at least a portion of a diameter of the second circular disk. Alternatively, the connecting body is substantially cylindrical. The cylindrical connecting body may have a diameter equal to or less than the diameter of the first circular disk or the second circular disk. The connecting body may be hollow, e.g., an annulus or a tube, or it may be solid, e.g., a solid cylinder. In one embodiment, a solid cylinder connecting body defines channels, e.g., hollowed out shapes that are parallel to the first circular disk. Alternatively, the solid cylinder connecting body defines channels that are perpendicular to the first circular disk. The channels may be uniformly- or irregularly-shaped. The channels may be positioned along the connecting body according to a uniform pattern or an irregular pattern. Various combinations of the above-described channels also are within the scope of the invention.

[0008] In certain embodiments, e.g., where the body is cylindrical, the security device is disposed on an exterior arced surface of the body. In other embodiments, the security device is disposed on an exterior flat surface of the body, e.g., a disk surface. The security device may be an electronic surveillance security device or a radio frequency identification device (RFID).

[0009] In another aspect, the invention features a method of using a roll core insert including providing a roll core insert having a security device and inserting the roll core insert into a roll. The roll may be a roll of paper, a roll of plastic or combinations thereof.

Description of the Drawings

[0010] — ~~[0004]~~ Figures 1A-E and 2A-F depict two exemplary embodiments, respectively, of core inserts of the present invention.

[0011] — ~~[0005]~~ Figure 1A is a top view of a first exemplary embodiment of the core insert of the present invention.

[0012] — ~~[0006]~~ Figure 1B is a top perspective view of the first exemplary embodiment.

[0013] — ~~[0007]~~ Figure 1C is a left side view of the first exemplary embodiment.

[0014] — ~~[0008]~~ Figure 1D is a front view of the first exemplary embodiment.

[0015] — ~~[0009]~~ Figure 1E is a top perspective view of the first exemplary embodiment with a security device and a register roll core.

[0016] — ~~[0010]~~ Figure 2A is a top view of a second exemplary embodiment of the core insert of the present invention.

[0017] — ~~[0011]~~ Figure 2B is a top perspective view of the second exemplary embodiment.

[0018] — ~~[0012]~~ Figure 2C is a rear view of the second exemplary embodiment.

[0019] — ~~[0013]~~ Figure 2D is a left side view of the second exemplary embodiment.

[0020] — ~~[0014]~~ Figure 2E is a front view of the second exemplary embodiment.

[0021] — ~~[0015]~~ Figure 2F is a top perspective view of the second exemplary embodiment with a security device and a register roll core.

Detailed Description

[0022] — ~~[0016]~~ The present invention will now be described more fully with reference to the accompanying drawings, in which preferred configurations of the invention are shown. This invention may, however, be embodied in different forms and should not be construed as limited to the configurations depicted in the drawings. Rather, the drawings are provided so that this disclosure will be thorough and complete, and will convey the scope of the invention to those skilled in the art.

[0023] — ~~[0017]~~ The terminology used in the description of the invention herein is for the purpose of describing particular configurations only, and is not intended to be limiting of the invention. As used herein, the singular articles “a,” “an,” and “the” are intended to include the

plural forms as well, unless the context clearly indicates otherwise. Unless otherwise defined herein, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs.

[0024] — ~~[0018]~~ The core insert of the present invention generally is configured to fit at least partially into a roll core, *e.g.*, a register roll core or a fax roll core. The core insert includes one or more spars, disks, or other configurations that have a dimension about equal to the inside diameter of the roll core, and an interior portion that is adapted to receive a security device. The core insert can be manufactured using any known method, such as machining or extrusion. The core insert can be formed using various materials, including cellulosic and/or polymeric materials.

[0025] — ~~[0019]~~ Any of various security devices can be used in connection with the present invention, including, but not limited to Electronic Article Surveillance (EAS) transponders or tags, including microwave, magnetic, acousto-magnetic and radio frequency transponders, and radio frequency identification device (RFID) tags, including magnetic coupled and electric field based RFID tags. Such devices are well known in the art and are readily and commercially available from companies such as Checkpoint Systems, Inc. (Thorofare, NJ), and Sensormatic Electronics Corporation (Boca Raton, FL).

[0026] — ~~[0020]~~ Figures 1A-E depict various views of an exemplary embodiment of the present invention. Figures 1A-E depict a core insert 1 that includes a first end 4 formed to define an exterior tab 8 and a second end 12 formed to define a flat, circular surface (outside planar surface) 16. Core inserts of the present invention can be formed to define any number of configurations on the ends. Preferably, however, the ends are formed to match configurations typically used on core inserts. For example, in Figures 1A-E, tab (engagement mechanism) 8 and surface 16 appear as a conventional register roll surfaces, where tab 8 is configured to engage a machine, such as a fax machine or cash register, for winding and unwinding the roll.

[0027] — ~~[0021]~~ The first end 4 also forms a disk-shaped portion (first circular disk) 20, and the second end 12 also forms a disk-shaped portion (second circular disk) 24, both having a first diameter $d1$ that is equal to or about equal to an interior diameter $d3$ of a roll core 46 into which it is to be eventually inserted. Consequently, the disk-shaped portions 20, 24 will form a friction fit with the interior of a roll core 46. The disk-shaped portions may be placed at different positions along the insert, but preferably are on the ends of the core insert as shown in Figures

1A-E. Alternatively, the surface that engages the roll core interior diameter can be non-circular in cross section, *e.g.*, containing one or more spars, provided it provides a means of engaging the interior diameter of the roll core 46.

~~[0028]~~ —~~[0022]~~ The core insert 1 also includes an interior portion (body) 28 that generally has a second diameter d_2 less than the first diameter d_1 of the disk-shaped portions 20 and 24. Interior portion 28 accommodates a security device 32, *e.g.*, an antenna, as shown in Figure 1E, which may be wound around an arced portion of the body. The interior portion can have numerous configurations, including the generally cylindrical shaped portion depicted in Figures 1A-E that includes a series of disk shaped portions 30 bisected twice by two perpendicular planar spars 34 and 38, each having a length matching the diameter d_1 . Figure 1E also depicts exemplary register roll 42 that includes a roll core 46 and wound paper 48. The roll core 46 has a diameter d_3 that is equal to or about equal to core insert diameter d_1 .

~~[0029]~~ —~~[0023]~~ Figures 2A-2F depict a second exemplary embodiment of a core insert 101 that includes a first end 104 formed to define an exterior tab (engagement mechanism) 108 and a second end 112 formed to define a flat, circular surface (outside planar surface) 116. As stated above, the core insert of the present invention can be formed to define any number of configurations on the ends. Preferably, however, the ends are formed to match configurations typically used on core inserts. For example, in Figures 2A-F, tab 108 and surface 116 appear as a conventional roll surfaces, where tab 108 is configured to engage a machine, such as a fax machine or cash register, for winding and unwinding the roll.

~~[0030]~~ —~~[0024]~~ The first end 104 forms a disk-shaped portion (first circular disk) 120, and the second end 112 forms a disk-shaped portion (second circular disk) 124. Both disk-shaped portions 120, 124 have a diameter d_1 that is about equal to an interior diameter d_3 of a roll core 142 such as that depicted in Figure 2F, so the core insert 101 will form a friction fit with the interior of the roll core 142. The disk-shaped portions may be placed at different positions along the insert, but preferably are on the ends of the core insert as shown in Figures 2A-F. The core insert 101 also includes an interior portion (body) 128 that forms a spar 129 to accommodate a security device 131 as shown in Figure 2F. The interior portion 128 can have numerous configurations, including but not limited to, additional spars. Figure 2F also depicts exemplary register roll 142 that includes a roll core 146 and wound paper 148. The roll core 146 has a diameter d_3 that is equal to or about equal to core insert diameter d_1 .

~~—[0025]—~~

[0031] The above invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The foregoing embodiments are illustrative therefore to be considered in all respects illustrative rather than limiting on the invention described herein. Scope of the present invention the invention is thus indicated by the appended claims rather than by the foregoing description, and are not to be construed as limiting thereof.

2452141 all changes that come within the meaning and range of equivalency of the claims are intended to be embraced therein.

We claim:

- 1 1. A roll core insert comprising:
2 a first circular disk having an inside planar surface and an outside planar surface;
3 a second circular disk having an inside planar surface and an outside planar surface;
4 a body connecting the inside planar surface of the first circular disk and the inside planar
5 surface of the second circular disk; and
6 a security device disposed on the roll core insert
7 wherein at least one of the outside planar surface of the first circular disk and the
8 outside planar surface of the second circular disk comprises an engagement mechanism.
- 1 2. The roll core insert of claim 1 wherein the body is a rectangular shape and
2 contacts at least a portion of a diameter of the first circular disk and at least a portion of a
3 diameter of the second circular disk.
- 1 3. The roll core insert of claim 1 wherein the body is substantially cylindrical,
2 having a diameter equal to or less than the diameter of the first circular disk or the second
3 circular disk.
- 1 4. The roll insert of claim 3 wherein the security device is disposed on an exterior
2 surface of the body, which comprises an arc and is not flat.
- 1 5. The roll core insert of claim 3 wherein the body is a solid cylinder.
- 1 6. The roll core insert of claim 5 wherein the solid cylinder defines channels.
- 1 7. The roll core insert of claim 1 wherein the engagement mechanism is a tab.
- 1 8. The roll core insert of claim 1 wherein the security device is an electronic
2 surveillance security device.
- 1 9. The roll core insert of claim 1 wherein the security device is a radio frequency
2 identification device.
- 1 10. A method of using a roll core insert, the method comprising the steps of:
2 providing a roll core insert of claim 1; and
3 inserting the roll core insert into a roll.
- 1 11. The method of claim 10 wherein the roll is a paper roll or a plastic roll.

Abstract

The invention generally relates to roll core inserts disposed with a security device and methods of using such roll core inserts. More specifically, the invention relates to roll core inserts having a body that connects the inside planar surfaces of a first circular disk and a second circular disk and the outside planar surface of one of the disks has an engagement mechanism. A security device is disposed on the roll core insert.

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